UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
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Lenexa, Kansas 66219

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OFFICE OF THE
REGIONAL ADMINISTRATOR

Ms. Rebecca J. Latka
U.S. Army Corps of Engineers, Omaha District
ATTN: CENWO-OD-RF
1616 Capitol Avenue
Omaha, Nebraska 68102

Dear Ms. Latka:

The U.S. Environmental Protection Agency, Region 7, has reviewed the U.S. Army Corps of Engineers' Draft Environmental Impact Statement for the Nebraska Highway 12 Niobrara East and West project. Our review and comments are provided pursuant to the National Environmental Policy Act 42 U.S.C. 4231, Council on Environmental Quality regulations 40 C.F.R. Parts 1500-1508, and Section 309 of the Clean Air Act. The DEIS was assigned the CEQ number 20150288. EPA is a cooperating agency with the Corps on this project. We appreciate the opportunity to provide these comments regarding this project and the DEIS.

Nebraska Highway 12 extends through Knox County, NE, largely paralleling the Missouri River in Nebraska between Ponca and Verdel, NE. The project area incorporates two segments of N-12, west and east of Niobrara, NE, which are located within the Missouri River floodplain and which have experienced repeated flood damage in the past. The project proposes to address the highway flooding as well as existing highway design problems in order to provide a reliable transportation connection between Verdel and Highway S-54D. The proposed action will require a Clean Water Act Section 404 permit from the Corps, triggering NEPA compliance by the Corps. The Nebraska Department of Roads has applied for a CWA Section 404 permit and the Corps has identified one alternative as the Department's 'Applied-for Project' alternative.

The Draft EIS describes the 'Applied-for Project' alternative and four other alternatives, including the 'no action' alternative. The 'no action' alternative would result in no change to the existing route of N-12 within the Missouri River floodplain and no design changes to N-12. The segment of N-12 in the bluffs will remain unchanged for all alternatives. The 'Applied-for Project' alternative, Alternative A7, relocates N-12 along the base of bluffs paralleling the Missouri River elevating the roadway using berms with culverts and bridges, minimizing its footprint within the floodplain and providing significantly more connectivity between the river channel and its floodplain. The three other action alternatives include an elevated roadway along the existing alignment (Alternative A1), an elevated roadway adjacent to the exiting alignment (Alternative A2) and an elevated roadway along the base of the river bluffs (Alternative 3) with fewer culverts and bridges than Alternative A7. Because the Corps is neither an opponent nor a proponent of the applicants' application, a recommended or preferred alternative is not identified by the Corps in this DEIS. Without a preferred alternative, we are providing ratings for all alternatives.

Based on our review, we have rated the 'Applied-for Project' alternative, Alternative A7, and Alternative 3 as Lack of Objections (LO). Given that the Corps considers Alternative A7 to be the "Least Environmentally Damaging Practicable Alternative" under Section 404(b)(1) of the CWA and the expanded access of the river to its floodplain provided by these alternatives, we support the applicant's selection of this project design in its application. We have rated the remaining action alternatives and the 'No-action Alternative' as Environmental Concerns (EC) based largely on the potential impacts of these alternatives on floodplain connectivity. We have also rated the adequacy of the Draft EIS as 1 (Adequate). Detailed comments regarding the overall analysis of impacts, suggested improvements to how several concepts are characterized in the Draft EIS and details regarding EPA's CWA Section 401 water quality certification for Tribal waters are enclosed, as well as a "Summary of Rating Definitions and Follow-Up Actions."

Once the Corps makes its decision regarding the Nebraska Department of Roads' Clean Water Act Section 404 permit application, EPA will review application materials to determine whether there is a complete application for our CWA Section 401 certification on behalf of the Tribes. Our timeline is approximately 60 days from our receipt of a complete water quality certification application.

Thank you for the opportunity to review the DEIS. As this project requires the review of EPA staff from multiple regulatory programs, questions regarding these comments should be directed to Josh Tapp, Deputy Director, Environmental Sciences and Technology Division, at 913-551-7706 or tapp.joshua@epa.gov, and he will redirect them to the appropriate program staff. If you have questions specifically regarding EPA's certification under CWA Section 401, please contact Jennifer Ousley at 913-551-7498 or ousley.jennifer@epa.gov.

Sincerely,

Mark Hague

Enclosure

cc: Matt Pillard, HDR, Omaha, NE

ENCLOSURE

DETAILED AND GENERAL COMMENTS ON THE DRAFT EIS

Clean Water Act Section 401 Water Quality Certification

The EIS notes in Table 1-5 that EPA Clean Water Act Section 401 water quality certification for Indian Country (tribal land) is "Evaluated at the time of Permit Decision." EPA would like to clarify our process and timeline. Our process begins when the Corps notifies Region 7 that it has made a decision on the CWA Section 404 permit application. At that time, we will review materials and determine whether the CWA Section 401 application is complete. Our timeline for issuing the certification is approximately 60 days and it does not start until we have determined that we have a complete 401 application.

We suggest the following change to the language regarding CWA Section 401 water quality certification on Tribal land in Section 4.12:

"This certification is a requirement of the Section 404 permit issuance. Section 401 of the CWA (Public Law 95-217), as amended in 1977, requires that an applicant for a federal permit such as CWA Section 404 permit must obtain certification that the discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA. All permits require a certification prior to issuance; therefore, this certification is a condition of these federal permits. Section 401 of the CWA states that in any case where a state, interstate agency or tribe has no authority to issue a water quality certification that the certification shall then be obtained from the EPA."

Appendix F, Wetlands and Other Waters of the U.S. Technical Memorandum, does not reference CWA Section 401. We suggest you add a reference to Section 401 and the following language:

"Section 401 of the CWA (Public Law 95-217), as amended in 1977, requires that an applicant for a federal permit such as CWA Section 404 permit must obtain certification that the discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA. All permits require a certification prior to issuance; therefore, this certification is a condition of these federal permits. Section 401 of the CWA states that in any case where a state, interstate agency or tribe has no authority to issue a water quality certification that the certification shall then be obtained from the EPA."

Project Area Baseline Conditions

The Draft EIS characterizes many impacts on the natural resources of the project area associated with the 'No-action' alternative as negligible. The Draft EIS also dismisses many of the impacts caused by action alternatives on or adjacent to the current alignment as indistinguishable from the impacts associated with the existing condition (i.e., 'no action'). Similarly, the Corps' modeling effort was based on the current alignment of N-12 as the edge of the floodway. This appears to be an inconsistent treatment of baseline impacts associated with the 'no-action' alternative. The value in comparing the 'no action' alternative, with its baseline conditions and impacts, to the impacts associated with action alternatives is largely derived from acknowledging that there *are* impacts under existing conditions which could either be worsened or improved with implementation of an action alternative, e.g., habitat

fragmentation, flood conveyance, flood storage. As a result of fragmentation and isolation of portions of the floodplain, we believe there are on-going impacts on floodplain hydrology and fish and wildlife associated with the existing alignment (No-action Alternative and Alternatives A1) which are also shared with Alternative A2 and reduced with Alternatives A3 and A7. Some impacts on natural resources are associated with construction activities, which would not occur with the 'no action' alternative and would occur with all action alternatives. Other impacts are associated with highway placement, whether on an existing or adjacent footprint or at the margin of the floodplain environment. Those impacts vary between 'no action' and action alternatives based on location and design. We recommend that the Final EIS better characterize the ongoing impacts of the existing alignment and thereby provide a more useful, consistent and representative comparison to similar impacts of the action alternatives sharing the same or adjacent alignment and reduced impacts of the two alternatives aligned along the base of the bluff and edge of the floodplain.

Cost Screening of Alternatives

As stated in our project scoping comments of August 7, 2015, the rationale supporting the Corps' use of "1.5 times the least costly alternative" as a screen for practicability as part of its CWA Section 404(b)(1) analysis could be improved. The Draft EIS does anecdotally reference the cost of all alternatives as exceeding the cost of "a normal arterial highway within the State of Nebraska", but, in the context of NEPA, a more expanded analysis of comparative cost associated with the original range of alternatives within the Final EIS, possibly to include other highway projects within Nebraska and similarly designed highway projects located within floodplain environments in other states, would strengthen the basis for narrowing down the range of alternatives based on cost.

Climate Change and Adaptation

The Draft EIS discussion of climate change, specifically in Appendix C, supported by the analysis in Appendix H, states that "A review of the influence of climate change was performed by the Corps in accordance with its policy on civil works studies, designs and projects" (Engineering and Construction Bulletin, Guidance for Incorporating Climate Change Impacts to Inland Hydrology in Civil Works Studies, Design, and Projects) and explains that this study indicated that "the potential increases in flood magnitudes and stages are likely in the uncertainty range for the existing hydrology used to compute flood stages and the stage effects caused by projected sediment deposition." Based on the results of this study, the Corps decided not to "change the flood frequency values to anticipated climate trends." Inclusion of this qualitative analysis within Appendix H is informative, but does not provide much useful direction for analysis. The Corps' specific conclusion that potential changes in hydrology potentially resulting from a changing regional climate are within existing flow and stage projections seems disconnected from the capabilities of the data and analysis.

Impacts of River Hydrology on Project Performance

A summary of the hydrologic record for the river reach containing the project area, specifically regarding stage and flow frequencies, would better and more completely characterize the flooding threat to the highway. For example, the Final EIS should identify how often N-12, within the project area, was over-topped and at what flows. Although still located within the delineated floodplain, all action alternatives are to be constructed 8.5 to 11 feet above the 1 Percent Flood water surface elevation.

Information regarding the likely inundation of the project during lower frequency flooding, such as the 0.2% flood, would also assist the public with understanding that the project reduces the threat of road closure due to Missouri River flooding rather than eliminates it.

The Final EIS would be improved if it included a better characterization of the purpose and results of the hydraulic modeling done by the Corps in 2015 (May 2015 Study) in support of its assessment of impacts on river conveyance and floodplain and lake storage. The narrative in Chapter 3 addressing FEMA's approximate Zone A coverage augmented by the Corps' alternative reliance on its own modeling results is unclear. The reliability of the Corps' determination that the project has no impact on flood conveyance or floodplain storage and that the project design will limit road closure due to high water events is a function of the reliability of this information.

Culvert and Bridge Placement and Design

As suggested in our project scoping comments of August 7, 2015, more detail and specificity with regard to the design and placement of culverts and bridges would better capture the nature of this improvement to current condition, i.e., types of structures, improved design of structures, an increase in the number and size of structures, how structures will provide greater access for surface and ground water movement and wildlife movement across alignment corridors. Chapter 2 describes how the National Park Service had requested, during the scoping process, "an option that would incorporate additional bridges to minimize impacts on wetlands and maintain floodplain connectivity." We could find no specifics with regard to how the number, dimensions and placement of bridges or other structures were determined, particularly for Alternative 7, in the Draft EIS or appendices. Appendix B contained only a limited engineering analysis of bridge design in support of NDOR's project cost estimates. Appendices A and D largely described the impacts on resources from structure placement, but only referenced general improvement on surface water, fish and wildlife passage associated with the use of larger culverts and bridges. The EIS would be improved with at least a characterization of the process by which NDOR determined how (number, design and size) and where these structures would be placed within the floodplain environment.

Right of Way

The Final EIS should identify the disposition of Right of Ways for the existing N-12 route should an alternative be selected which would include removal of portions or all of associated structures.

Mitigation for Construction-related Impacts

The follow recommendations regarding the mitigation of construction-related diesel emissions should be identified in Chapter 5 of the Final EIS:

- Use low-sulfur diesel fuel (15 ppm sulfur maximum) in construction vehicles and equipment.
- Retrofit engines with an exhaust filtration device to capture diesel particulate matter before it enters the construction site.

- Position the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, reducing the fume concentration to which personnel are exposed.
- Use catalytic converters to reduce carbon monoxide, aldehydes, and hydrocarbons in diesel fumes. These devices must be used with low sulfur fuels.

- Use enclosed, climate-controlled cabs pressurized and equipped with high efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes.

- Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first.

- Regularly maintain diesel engines, which is essential to keep exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance. For example, blue/black smoke indicates that an engine requires servicing or tuning.

- Reduce exposure through work practices and training, such as turning off engines when vehicles are stopped for more than a few minutes, training diesel-equipment operators to perform routine inspection, and maintaining filtration devices.

- Repower older vehicles and/or equipment with diesel- or alternatively-fueled engines certified to meet newer, more stringent emissions standards. Purchase new vehicles that are equipped with the most advanced emission control systems available.

- Use electric starting aids such as block heaters with older vehicles to warm the engine to reduce diesel emissions.

- Per Executive Order 13045 on Children's Health, EPA recommends operators and workers' pay particular attention to worksite proximity to places where children live, learn, and play, such as homes, schools, and playgrounds. Diesel emission reduction measures should be strictly implemented near these locations in order to be protective of children's health.

Draft Environmental Impact Statement Rating Definitions

Environmental Impact of the Action

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative. EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer

has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.